DRAWING AMENDMENTS

Please enter the following amendments to the Drawings as follows:

The Applicants have submitted replacement sheets for figures 1-7 and request that figures A and B be cancelled. The replacement sheets for figures 1-7 have lines, numbers and letters that are uniformly thick and well-defined, clean, durable and black and do not introduce new matter. Furthermore, figures 4 and 5 now have the proper symbols for condensers and lead lines denoting transformer 51 are now capped with arrows.

REMARKS

Claims 1-5, 7, 9, 10-12, 14, and 16-19 have been rewritten. Claims 6, 15 and 20 have been cancelled without prejudice or disclaimer. Claims 8 and 13 are original.

I. ALLOWABLE MATTER

Applicants note with appreciation the Examiner's indication that claims 6, 7, 15, and 17 would be allowable if rewritten in independent form including all the limitation of the base claim. The Examiner indicated that the prior art of record does not disclose or teach a solenoid based propulsion system where the magnetic object is propelled out of a tube in combination with other features of claims 6 and 15.

Independent claim 1, the base claim for 6, has been amended to include the limitation (s) of dependent claim 6, while dependent claim 6 has been cancelled. Dependent claim 7, which originally depended from now cancelled claim 6, has been rewritten to depend from independent claim 1.

Independent Claim 14, the base claim for claim 15, has been amended to include the limitation(s) of dependent claim 15, while claim 15 has been cancelled. Dependent claim 16 has been amended to properly depend upon independent claim 14.

II. SPECIFICATION

The Office indicated that the disclosure was objected to for utilizing the term "dwell angle" in describing the length of time (e.g. the duration) of energizing of wire coil(s) during an operation of a solenoid; for utilizing the phrase "solenoid within a solenoid"; the Applicants' definition of counter electromotive force; and the Applicants' use of term "electrical audio signals".

The Applicants thank the Office for pointing out these informalities in the disclosure and

apologize for any inconvenience they may have caused. The Applicants have requested amendments to the disclosure to remove the terms "dwell angle", "solenoid within a solenoid"; and "electrical audio signals". Applicants have further requested amendment of disclosure to substantially adopt the Examiner's proposed definition of counter electromotive force (CEMF). As such, the Applicants respectfully request that the Office reconsider and withdraw its objections to the Description.

III. DRAWINGS

Although the Office had indicated on the Office Action Summary that the drawings filed with application where accepted by the Office, the enclosed Notice by the Draftsperson had indicated that the drawings where objected to by the Draftsperson. On this basis, the Applicants have substituted new drawings with the required corrections. The draftsperson also indicted that two drawings of circuitry labeled Exhibit A and Exhibit B were also included with the application. The Applicants respectfully request that drawings labeled Exhibit A and Exhibit B be cancelled.

The draftsperson had indicated that all remaining drawings (figures 1-7) were objected to by the draftsperson for having lines, numbers & letters not uniformly thick and well-defined, clean, durable, and black. The draftsperson also indicated that in figures 4 and 5, the symbol for condensers had a line running through the symbol, when such line should otherwise be interpreted. Also in figures 4 and 5, the lead line for transformer 51 should be capped with an arrow. The replacement sheets for figures 1-7 have incorporated these requested corrections. As such, the Applicants respectfully request that the Office reconsider and withdraw its objections to the Drawings.

IV. CLAIM OBJECTIONS

The Office in the Non-final Office Action has indicated the following claim objections: 1) claims 1-3, 11, 19 and 20 are objected to because of they use the objected to term dwell angle; 2)

Claims 9 and 12 are objected to because of the phrase "audio signal generator; 3) Claim 17 is objected to because it is lacks a period; 4) Claims 18-20 are objected to because "the additional step" lacks antecedent basis, 5) Claim 18 further lacks antecedent basis for the term "propulsion magnet", and 6) Claim 20 is additionally objected to because it is a word for word repetition of claim 19.

The Applicants thank the Office for pointing out these inconsistencies and apologize for any inconvenience they may have caused. The Applicants have cancelled claim 20 and have amended claims 1-3, 11, 19 to replace the term dwell angle with the terms such as "time duration for energizing". The Applicants have also requested amendment of claims 9 and 12 to replace the term "audio signal generator" and to insert the term "sine/square wave audio generator". The Applicants requested amendment to claims 18 and 19 to delete the term "the additional step" (claim 20 is cancelled).

Additionally, as to claim 18, the Applicants respectfully point out that propulsion magnet **90** does have antecedent basis in the disclosure as shown on lines 28-32 page 24 through line 1 of page 25:

> "The invention **1** also features at least *one propulsion magnet(s)* **90** made from rare earth metal(s) that is adjustably held in close proximity to at least one end of the tube **23**, but does not contact the multiple wire coil set solenoid **20** or the magnetic object **14**. The *propulsion magnet(s)* **90** can be adjusted manually to a position close to the multiple wire coil set solenoid **20** to provide optimal operational speed of the piston **21**/payload **12**. A variety methods known to those versed in the art provides the means for accomplishing this adjustment." (Emphasis added.)

The propulsion magnet **90** is also listed on page line 4, page 12 and well as shown in figures 1 and 3. As such the Applicants respectfully request that the Office reconsider and withdraw its objection based on lack of antecedent basis to claim 18.

REJECTION UNDER 35 U.S.C. §102(b)

The Office rejected claims independent claim 1 (and related dependant claims 2, 3, 4, and 9) as being anticipated by Gilford 5,457,349. The Office further pointed out that that other dependant claims 6 and 7 of independent claim 1 could be allowable if amended to include the limitations of the base claim and any other intervening claim. As stated above, Applicants, have requested that independent claim 1 be amended to include the limitation of dependent claim 6 and have requested claim 6 be cancelled.

For these reasons, the Applicants respectfully request that the Office reconsider and withdraw its rejections of independent claim 1 and its remaining dependent claims 2, 3, 4, 5, 7, 8, and 9, and that these claims be placed into condition for issuance.

IV. REJECTION UNDER 35 U.S.C. §103(a)

The Office has rejected independent claim 10 as be anticipated under 35 U.S.C. §103(a) by Gilford in view of Pyntikov (US 6,853,107). In particular, the Office in setting forth its rejection of claim 10 held that Gilford discloses multiple wire coil sets with reciprocating magnetic objects that variably controls the time duration for the energizing of the individual coil wire sets but does not skip wire coils sets at selected times. The Office further sets forth that Pyntikov teaches that motors have different efficiencies based on the number of coils or wire turns in a coil and that it would be obvious to vary the number of coils or turns in a coil to increase the efficiency of the device.

The Applicants respectfully traverse the rejection of independent claim 10 (and dependent claim 5) on the basis that Pyntikov et al (US 6,853,107) does not teach "skip energizing" of a wire coil. Skip energizing is generally set forth by the Applicants in the description page 25, line 16 to page 25, line 22:

> ...the energizing apparatus **50** can "skip" energize certain wire coil set(s) at select times. The operator implements this skip energize operational mode when the invention **1** is operating at a certain speed, power output and load to selectively to prevent energizing of a specific wire coil set(s) that should other wise be energized at that time. This skip energizing substitutes the momentum of the mass of the invention's moving parts [magnetic object **14** and/or conversion mechanism **40**] for electrical energy/current supplied by the outside power source of the external energy sub-circuit **51**.

As set substantially forth in the description page 25, line 30-page 26, line 2, the skip energizing could occur when:

> "The energizing apparatus **50**, in a manner known to those skilled in the art, would be connected to a CPU or computer with imbedded software monitoring the invention's operating conditions and according to preset and/or operator adjustable parameters to timely block the energizing of specific wire coil sets **22** despite the activation of the wire coil set energizing sub-circuits **60** controlling those wire coil sets **22**."

In contrast, Pynikov et al column 4 line 3 to column 4 line 16 appears to teach that a coil be composed of sections of wrappings that can be electrically isolated from one another so that during different operational loads, different sections of the coil could be electrified. In this manner, at least one or more parts of the coil is electrified or energized during operation during its respective energizing sequence during each sub speed range.

The Applicants argue that their invention during operation (e.g., when the motor is at speed) may be adjusted to momentarily allow an entire coil, not a portion of the coil, not be energized (e.g., skip energizing) when it would otherwise be energized during its energizing sequence. The Applicants' invention generally does not pertain to limiting or otherwise altering the number of

wrappings in a wire coil as does Pynikov et al as the Office claims. The Applicant's invention substantially allows a motor (and the like) operating at speed to use the momentum of the reciprocating movement of the magnetic article to move the magnetic article rather than the force imposed by a magnetic field (so as to conserve electrical energy used by the invention). Pynikov et al on the other hand may be seen as altering the number of wrappings used in a coil (e.g., de-energizes only a portion of the coil) to generally match the load required by a motor to operate efficiently as a sub range speed. In this manner, Pynikov et all may be distinguished from the present invention. As such, the Applicants respectfully request that the Office reconsider and withdraw its rejection of independent claim 10, to allow independent claim 10 and its dependent claims 11, 12, and 13 to issue.

The Office had indicated that it rejected to independent claim 14 as being unpatentable over Gifford in view of Hiterer et al 5,963,991. The Office also indicated that dependent claims 15 and 16 (of independent claim 14) could be allowable if they were amended to include all the limitations of any base claim and intervening claims.

The Applicants have requested the amendment of independent claim 14 to include the limitation(s) of its dependent claim 15 and have further requested the cancellation of dependent claim 15. As such, the Applicants respectfully request that the Office reconsider its rejection of independent claim 14 and to allow independent claim 14 and its remaining dependent claims 16, 17, 18, and 19 to issue.

CONCLUSION

With the above amendments and argument, the Applicants believe that they have fully responded to the Office's stated objections and rejections and submit that the present Application is in condition for allowance. Therefore, the Applicants respectfully request that the Office, in consideration of the above amendments and arguments, rescind its objections and rejections to the above Application and place the Application in position for issuance. If the Examiner has any questions regarding the Application or this Amendment A, the Examiner is encouraged to call the Applicants' attorney, John D. Long, at (775) 827-8767 PST to possibly resolve any issues in a timely and efficient manner.

The Applicants thank the Examiner for his time and effort in this matter.

Respectfully submitted by

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